

FIG. 1

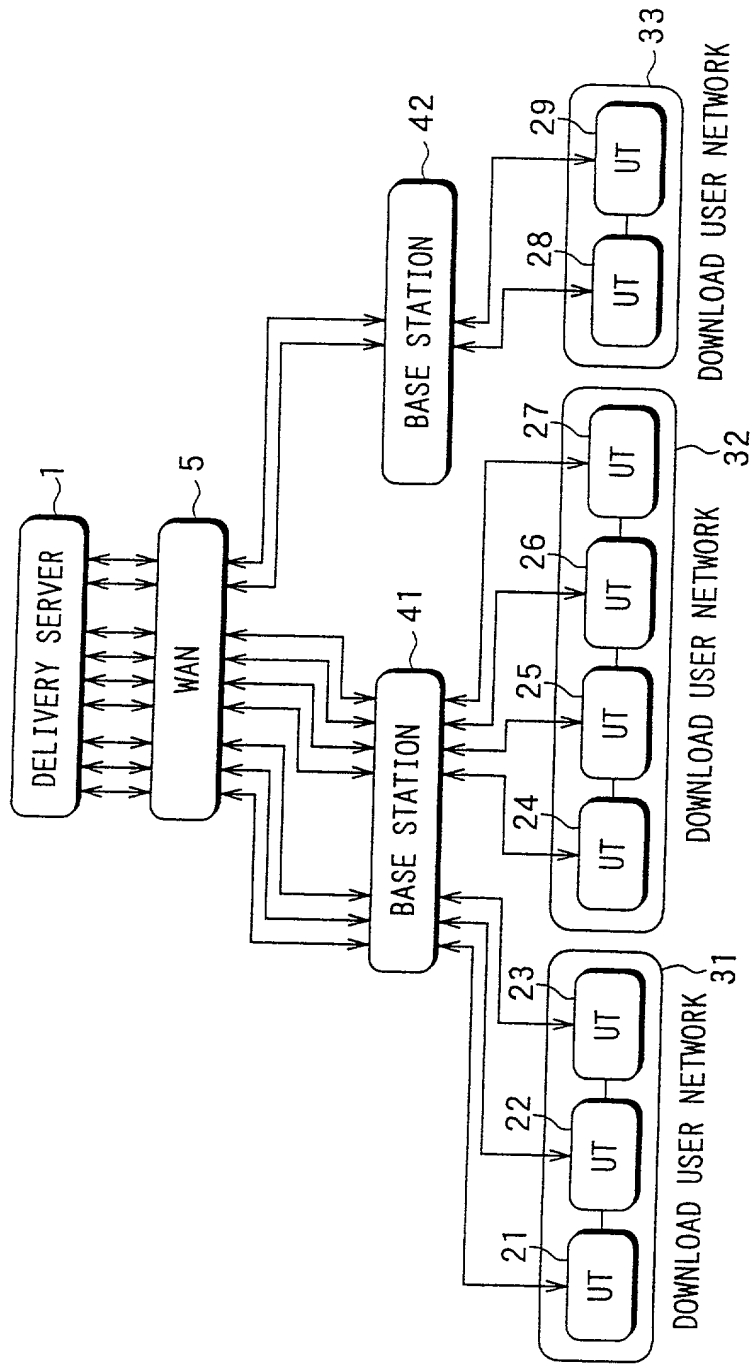


FIG. 2

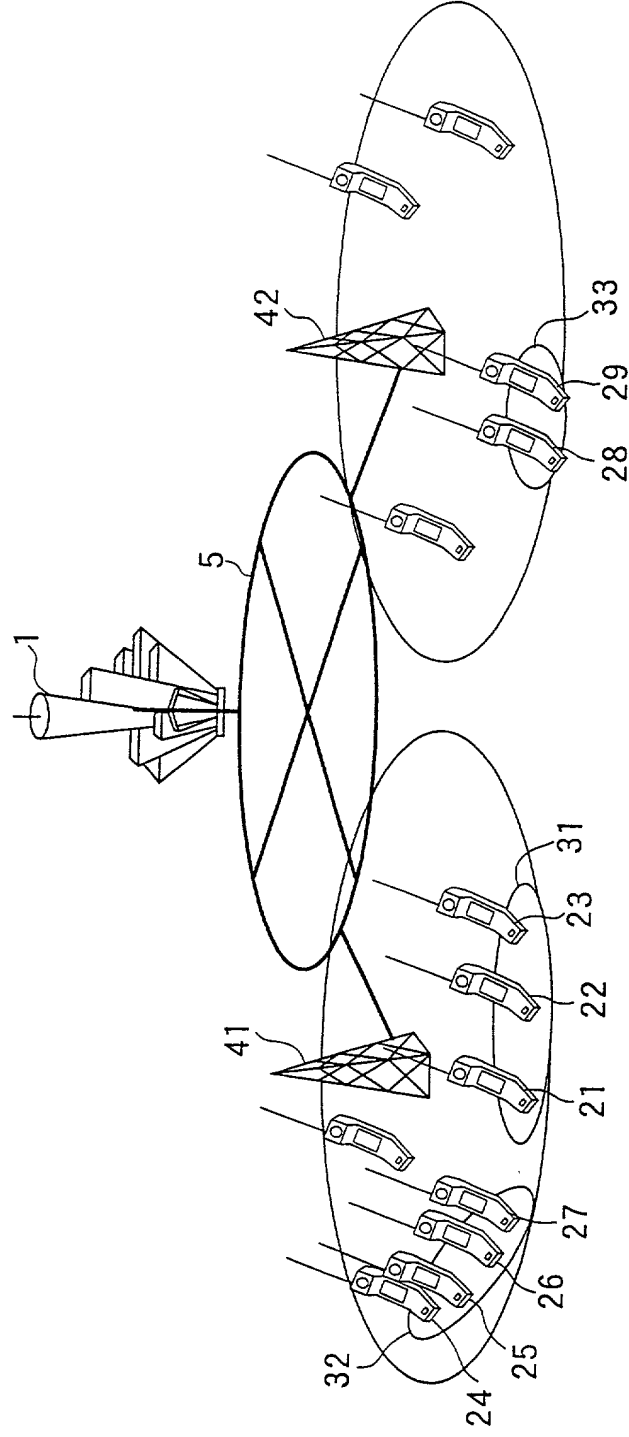


FIG. 3A

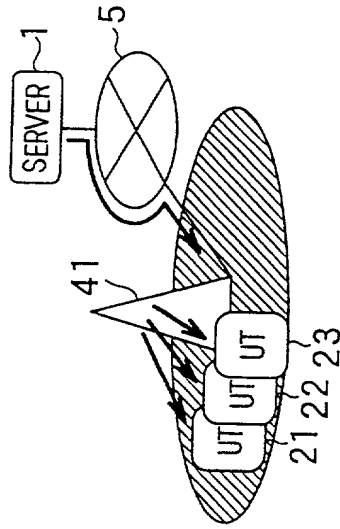


FIG. 3B

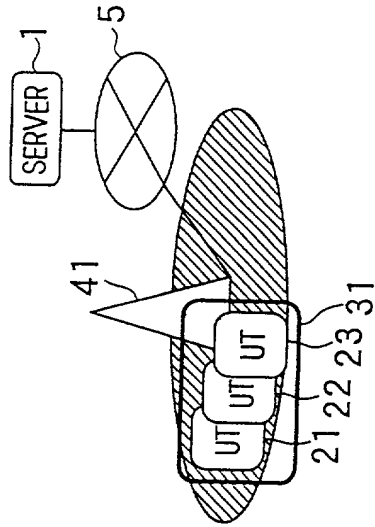


FIG. 3C

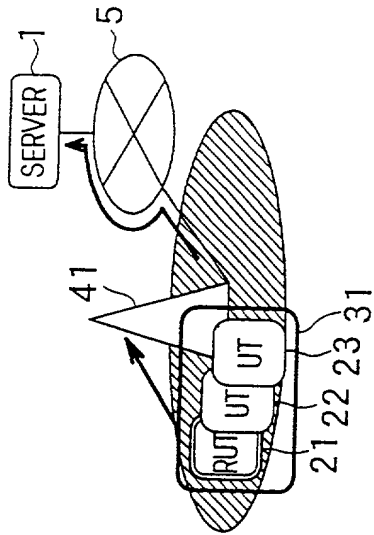


FIG. 3D

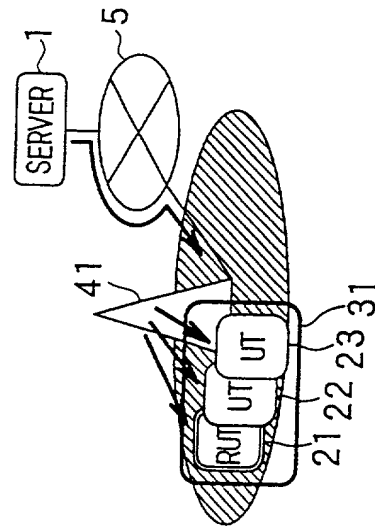


FIG. 3E

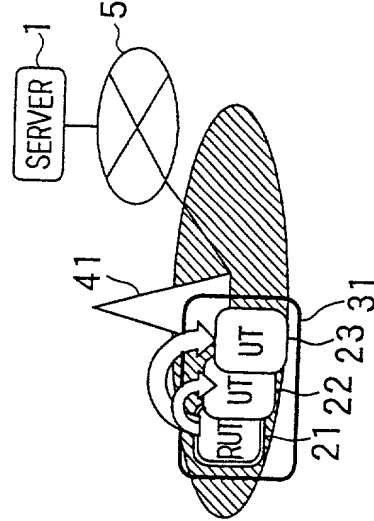
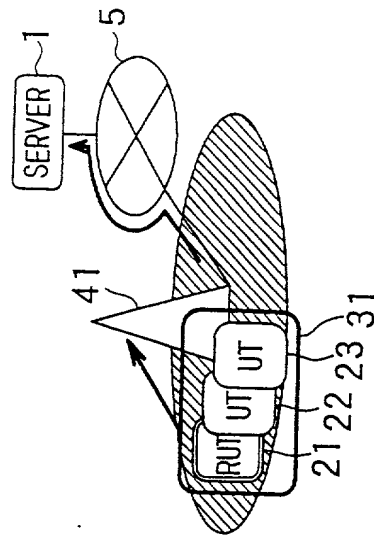


FIG. 3F



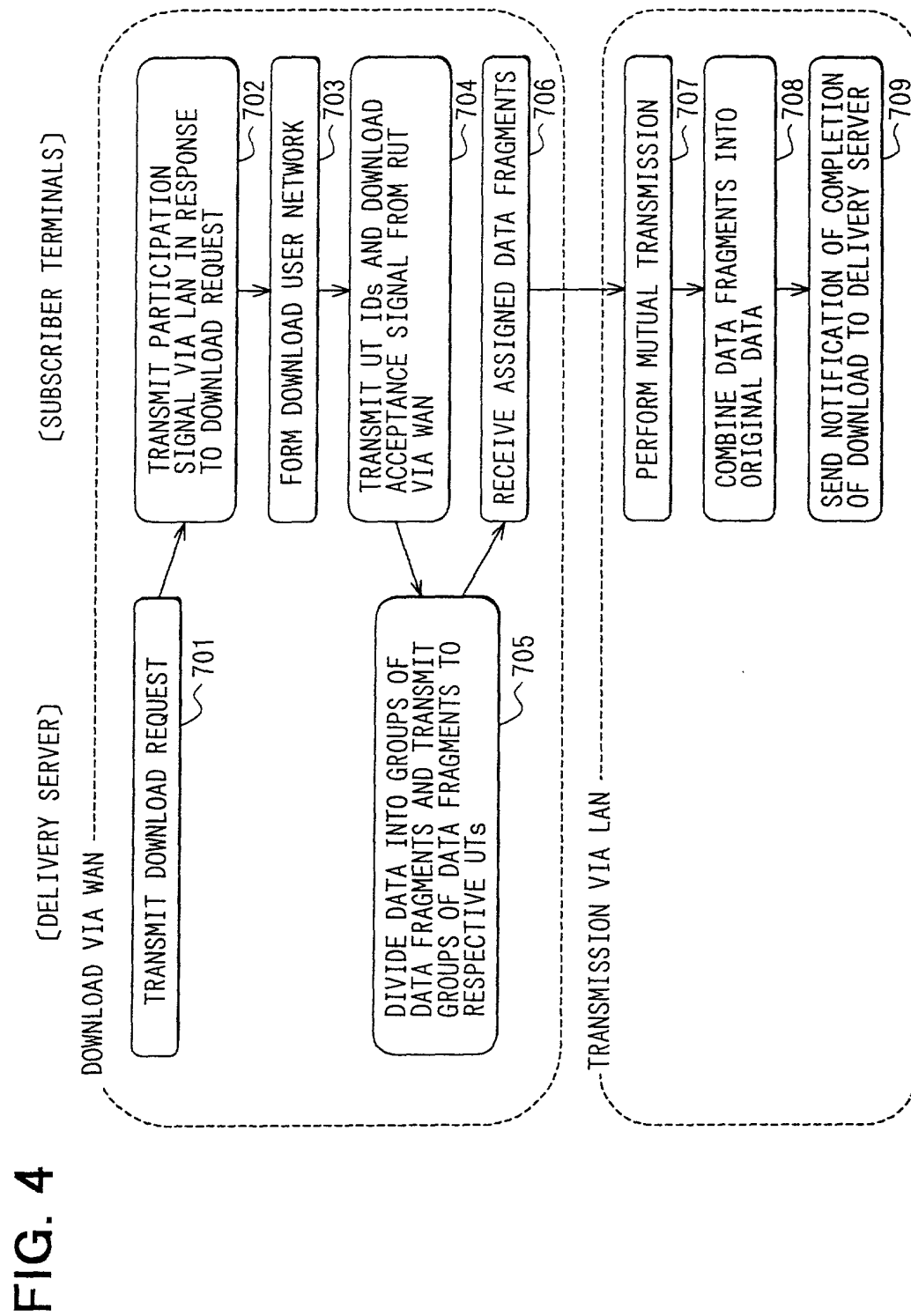


FIG. 5A

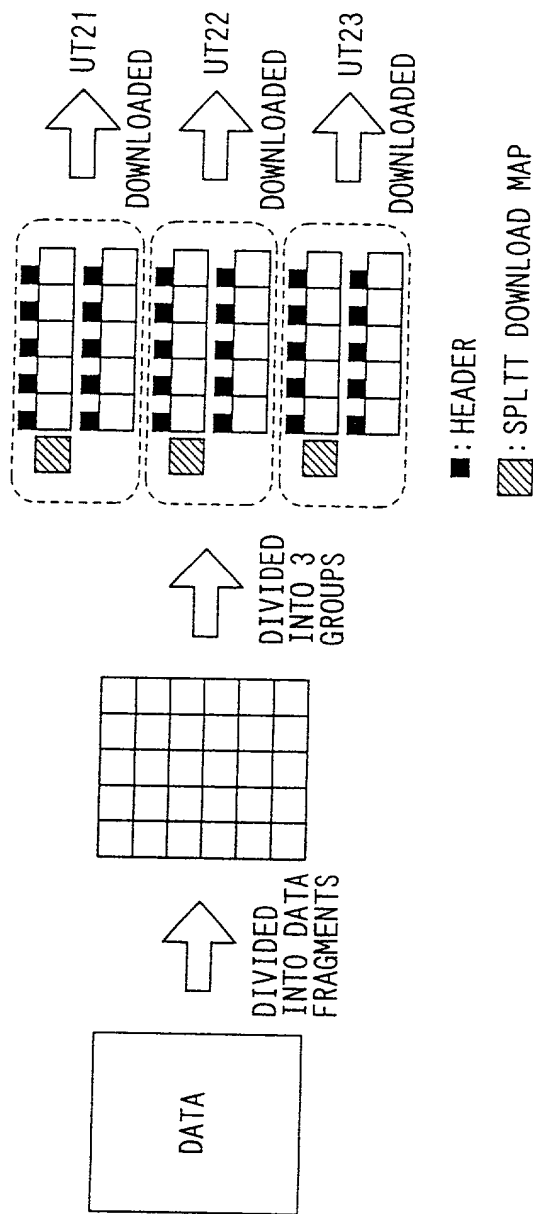


FIG. 5B

DATA ID INFORMATION:CDxxxxxxx
 DOWNLOAD USER NETWORK ID:00xxxxxxx
 DATABASE OF NUMBER AND POSITION OF
 DATA FRAGMENTS ASSIGNED TO EACH UT
 USER A:No.1 ~No.10
 USER B:No.11~No.20
 USER C:No.21~No.30
 NUMBER OF UPDATES:0

FIG. 6

ONE-TO-ONE MUTUAL TRANSMISSION					
DOWNLOADED DATA FRAGMENTS :	UT :	A	B	C	D
RESULT OF FIRST STAGE :		a	b	c	d
RESULT OF SECOND STAGE :		ab	ab	cd	cd
RESULT OF FINAL STAGE :		abcd	abef	abcd	cdef
		abcdef	abcdef	abcdef	abcdef
				E	F
				e	f
				ef	ef
				abef	cdef
				abcdef	abcdef

FIG. 9

ONE-TO-MULTIPLE MUTUAL TRANSMISSION					
DOWNLOADED DATA FRAGMENTS :	UT :	A	B	C	D
RESULT OF FIRST STAGE :		a	b	c	d
RESULT OF SECOND STAGE :		a	ab	ac	ad
RESULT OF THIRD STAGE :		ab	ab	abc	abd
RESULT OF FOURTH STAGE :		abc	abc	abc	abcd
RESULT OF FIFTH STAGE :		abcd	abcd	abcd	abcd
RESULT OF FINAL STAGE :		abcde	abcde	abcde	abcde
		abcdef	abcdef	abcdef	abcdef
				E	F
				e	f
				ae	af
				abe	abf
				abce	abc f
				abcde	abcd f
				abcde	abcde f
				abcdef	abcdef

FIG. 7

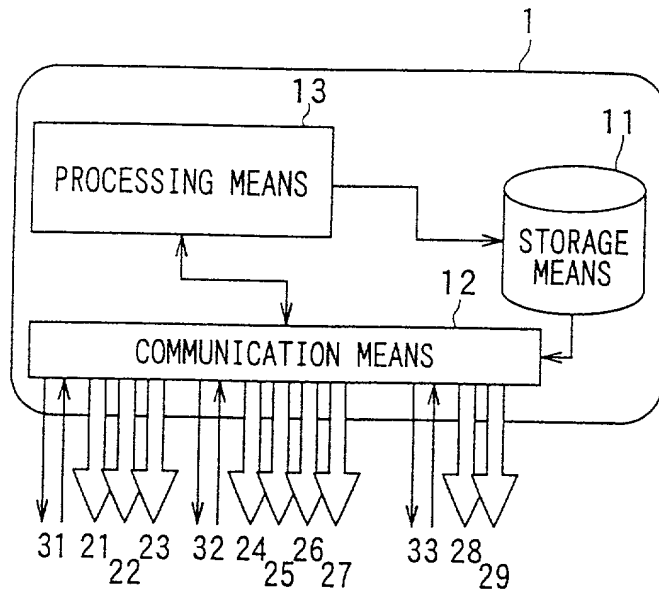


FIG. 8

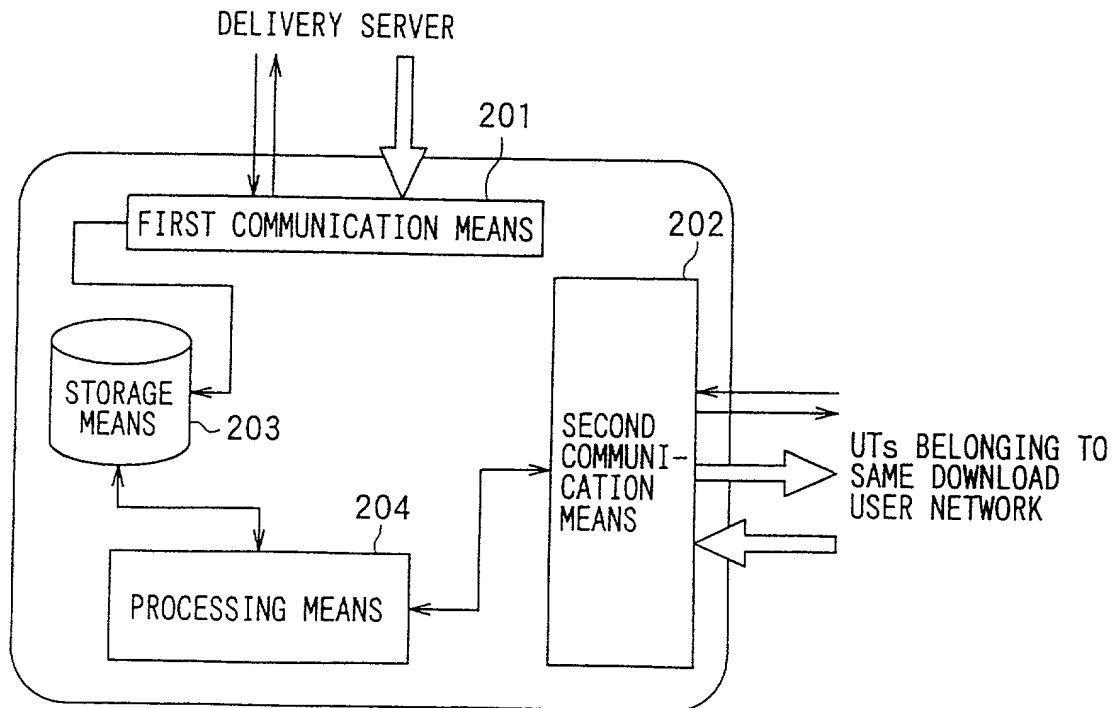


FIG. 10

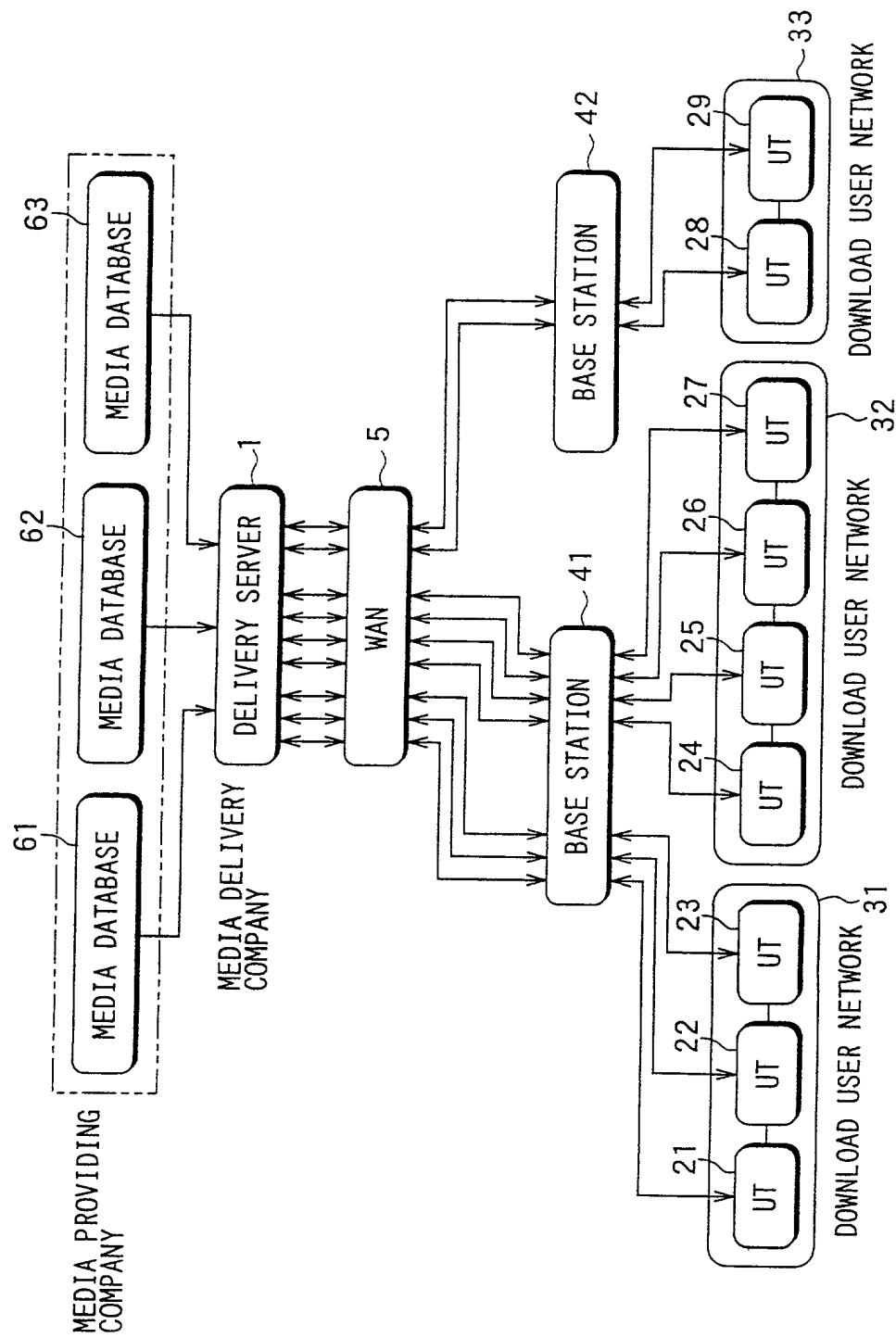


FIG. 11

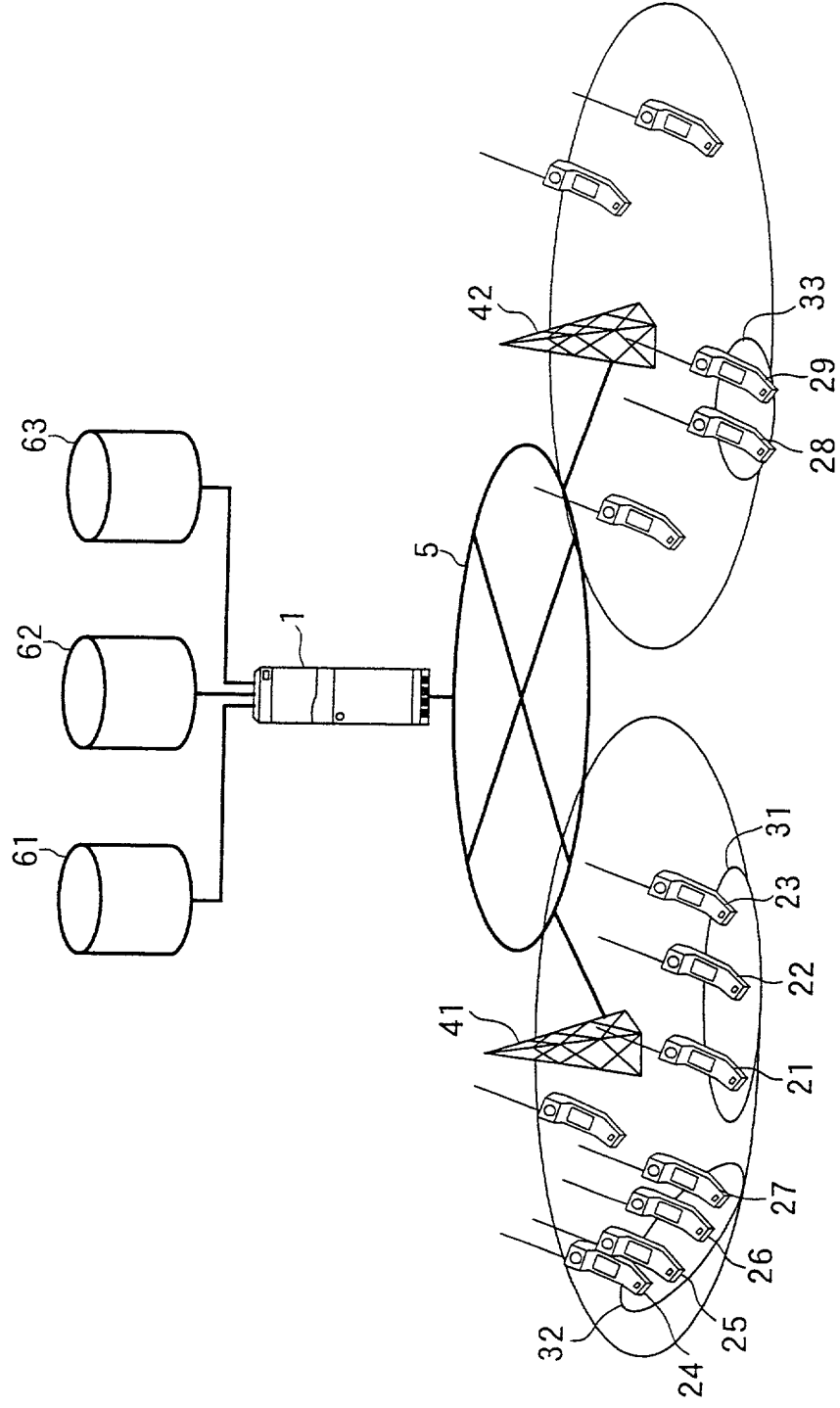
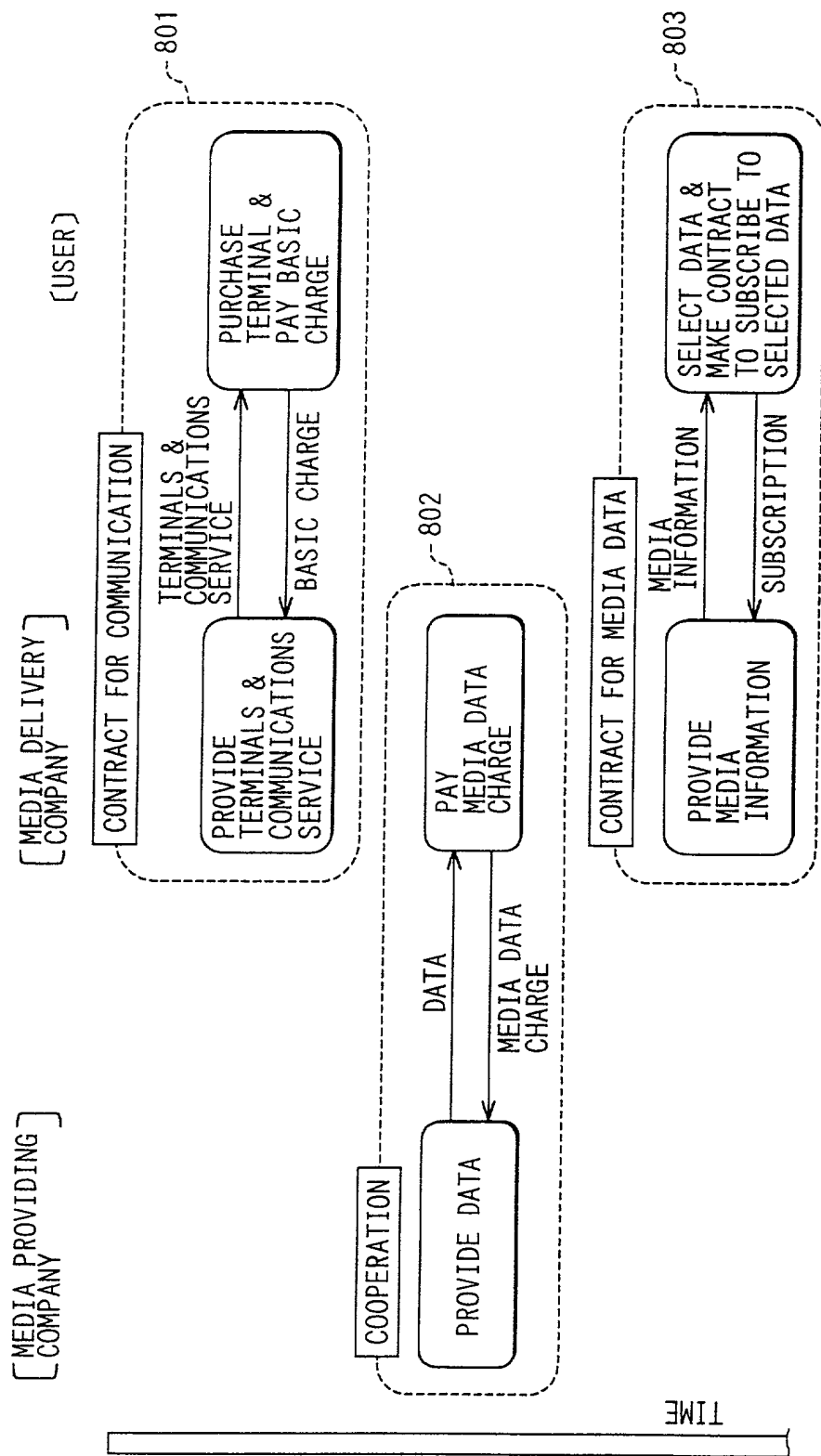


FIG. 12A



TO
FIG. 12B

FIG. 12B

